

10/654,554

Filed: 9/3/03

What is claimed is:

1. A self-locking reduction device which comprises:

a support; an input shaft which is rotatably mounted to the support and has an eccentric shaft portion; an external gear which is rotatably mounted to the eccentric shaft portion;

drive means for driving the input shaft;

output means which is rotatably mounted to the support and coaxial with the input shaft, said output means having an internal gear which is engaged with the external gear, three pins or bores being formed at regular intervals on the external gear on a circumference around a center of said eccentric shaft portion, while three bores or pins being formed at regular intervals on the support facing the external gear on a circumference around a center of said input shaft, the former pins or bores being engaged with the latter bores or pins so that the external gear may be eccentrically moved, internal teeth of the internal gear engaged with the external teeth of the external gear being slightly more in number than the external teeth of the external gear;

the brake means is provided in the support for braking the input shaft; and

the brake means comprising metal-to-metal contact between the input shaft and one of the latter pins or bores around the input shaft.

2. A reduction device as claimed in claim 1 wherein said drive means comprises an electric tool via an attachment.

3. A reduction device as claimed in claim 1 wherein said drive means comprises an electric motor jointed thereto.

4. A reduction device as claimed in claim 1 wherein said drive means comprises a manually-operated handle which is detachably mounted.

5. A reduction device as claimed in claim 1 wherein the input shaft is projected from one end of the support, said output means comprising an output shaft which is projected from the other end of the support to align the input shaft.
- 5 6. A reduction device as claimed in any of claim 1 wherein the output means comprises a winding drum for winding a wire which is wound by turning the input shaft.